

**Notice of Allowability**

Application No.

10/755,392

Examiner

Lora E. Barnhart

Applicant(s)

OTTO, ROEL

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's reply received 2/10/06.
2. ☒ The allowed claim(s) is/are 1,2,4-6 and 8-11.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance             |
|   | 9. <input type="checkbox"/> Other _____   |

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Julie Lake on 4/20/06.

The application has been amended as follows:

Replace claim 1 in its entirety with the following.

- - - Claim 1. A process for preparing lactic acid and/or lactate, comprising:

anaerobically fermenting in a fermentation broth a pentose-containing substrate by a moderately thermophilic *Bacillus* species selected from the group consisting of *Bacillus coagulans* and *Bacillus smithii* to form lactic acid and/or lactate; and

recovering lactic acid and/or lactate from the fermentation broth;

wherein the fermenting is conducted at a temperature between 30°C and 65°C;

wherein the pentose-containing substrate comprises at least one of xylose, arabinose, and ribose; and

wherein the pentose-containing substrate contains a smaller amount of hexose monomers than pentose monomers. - - -

Claim 3 is canceled.

Replace claim 6 in its entirety with the following.

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- - - Claim 6. The process according to claim 1, wherein the fermenting is performed by a mixture comprising *Bacillus coagulans* and another lactic acid-producing microorganism. - - -

Claim 7 is canceled.

In claim 9, at line 1, replace "claim 7" with - - - claim 1 - - -.

In claim 9, at lines 3-4, replace "the moderately thermophilic *Bacillus* species" with - - - the moderately thermophilic *Bacillus* species selected from the group consisting of *Bacillus coagulans* and *Bacillus smithii* - - -.

In claim 9, at line 4, delete the phrase "homolactically and".

In claim 10, at line 1, replace "claim 7" with - - - claim 1 - - -.

In claim 10, at lines 3-4, replace "the moderately thermophilic *Bacillus* species" with - - - the moderately thermophilic *Bacillus* species selected from the group consisting of *Bacillus coagulans* and *Bacillus smithii* - - -.

In claim 10, at line 5, delete the phrase "homolactically and".

Please add new claim 11:

- - - Claim 11. The process according to claim 1, wherein the fermenting is performed by a mixture comprising *Bacillus smithii* and another lactic acid-producing microorganism. - - -

Claims 1, 2, 4-6, and 8-11 are allowed, as amended above where appropriate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lora E. Barnhart whose telephone number is 571-272-1928. The examiner can normally be reached on Monday-Friday, 8:00am - 4:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lora E Barnhart

WLB

*Irene Marx*  
**IRENE MARX**  
**PRIMARY EXAMINER**